

PETROVSKIY, B.V.; SOLOV'YEV, G.M.; SHUMAKOV, V.I.; BUNYATYAN, A.A.;  
KHODAS, M.Ya.; SHABALKIN, B.V.; RYSHKIN, V.S.; PYATNITSKAYA, G.Kh.

Results of work with the apparatus of artificial blood circulation  
of the Craford-Senning system. Trudy 1-go MMI 33:9-14 '64.  
(MIRA 18:3)

PETROVSKIY, B.V.; SOLOV'YEV, G.M.; KHODAS, M.Ya.; ARKATOV, V.A.;  
ZHIDOVETSKAYA, A.Sh.; TUMASHEVA, N.N.

Some hematological and biochemical indices in experimental  
extracorporeal circulation; preliminary report. Trudy 1-go  
MMI 33:15-24, '64. (MIRA 18:3)

KHODAS, M.Ya.; GRACHEV, V.I. [deceased]; IVANOVA, L.A.

Mechanism of the effect of thiopental on the level of the blood sugar in ether anesthesia. Trudy 1-go MMI 33:34-40 '64.

Effect of thiopental on the content of adrenergic substances in the blood in ether anesthesia. Ibid.:51-56

(MIRA 18:3)

GEBEL', G.Ya.; KHODAS, M.Ya.

Some problems in the study of the physiology of the heart; effect  
of phenothiazine preparations on the heart. Trudy 1-go MMI 33:  
83-104 '64. (MIRA 18:3)

OSIFOV, V.P.; KHODAS, H.Ya.

State of the blood supply of the cerebral cortex during artificial  
arterial hypotonia. Trudy 1-go MI 33:105-115 '64.

(MIRA 18:3)

BAIA SHOV, Yu.A. [deceased]; KHODAS, M.Ya.; KOLYUTSKAYA, O.D.

Method of polarographic determination of oxygen tension in  
the tissues. Trudy 1-go MMI 33:116-119 '64.

(MIRA 18:3)

BUNYATYAN, A.A.; SOLOV'YEV, G.M.; SHUMAKOV, V.I.; KHODAS, M.Ya.

Anesthetic characteristics and safety provisions in operations  
on an open heart with extracorporeal circulation. Trudy 1-go  
MMI 33:199-204 '64. (MIRA 13:3)

RAYSKINA, M.Ye.; SAMDYLOVA, Z.T.; KHODAS, M.Ye.

Effect of adrenaline, noradrenaline and acetylcholine on the oxygen balance of the heart following a ligation of the coronary artery. Pat. fiziol. i eksp. terap. 9 no.3:16-20. My-Je '65.  
(MIRA 18:9)

1. Kafedra patologicheskoy fiziologii (zav.- prof. S.M. Leytes)  
TSentral'nogo instituta usovershenstvovaniya vrachey, Moskva.



GORGIEV, T.B.; KRASNOVA, V.G.; YARTSEVA, I.M.; KHODAS, N.D.; RUKAVITSA, T.Z.

Some data on mortality from influenza in Dnepropetrovsk during  
the 1959 epidemic. Vop. virus. 6 no.5:628-629 S-0 '61.

(MIRA 15:1)

1. Institut epidemiologii, mikrobiologii i gigiyeny imeni N.F.Gamalei,  
Dnepropetrovsk.

(DNEPROPETROVSK\_\_INFLUENZA)

**KHODASEVICH, A.P.**

Determination of promedol in forensic chemical studies.  
Apt. delo<sup>4</sup> no.5:38 S-O '55. (MLRA 8:12)

1. Iz Byuro respublikanskoy subednomedit'sinskoy ekspertizy  
Ministerstva zdavookhraneniya Latviskoy SSR.  
(ANALGESICS, determination,  
4-phenyl-r-propoxy-1,2,5,-trimethyl-piperidine HCl,  
forensic aspects)

*Office of Republic Forensic Medical Examination, Leningrad  
LSSR*

KHODASEVICH, R.Y.

Speeding up forensic chemical investigations  
Khodasevich, R.Y. *Prilozhenie* No. 2, 3 (1956). — 1 part.  
units of vol. used in toxicological analysis are evaporated on a  
water bath at 40° in an air stream directed at an angle of  
20-30°. Evaporation time is reduced from 1.5-2 h to 3-6 min.  
S. S. Moshin

**KHODASEVICH, A.P.**

Death due to caffeine poisoning; a case from practice. *Farm.i toka.*  
19 supplement:62 '56. (MIRA 10:7)

1. Respublikanskoye byuro (nach. A.V.Shpiganovich) sudebno-  
meditsinskoy ekspertizy Ministerstva zdoravookhraneniya Latvyskoy  
SSR.

(CAFFEINE--PHYSIOLOGICAL EFFECT)

**KHODASEVICH, B. (Leningrad)**

Manufacturing the least expensive and most effective chemical fertilizers. Vop. ekon. no.3:152-153 Mr '60.

(MIRA 1312)

(Fertilizers and manures)

~~KHODASEVICH~~, Dr. (Leningrad); VASIL'YEVA, R. (Kiyev); PUKHLYAKOV, P.  
(Voronezh)

From practice of economics departments of institutions of higher learning.  
Vop. ekon. no.1:130-133 Ja '61. (MIRA 13:12)  
(Economics—Study and teaching)

KHODASEVICH, B. (Leningrad)

Research and study process. Vop. ekon. no.12:148-149, D '62;  
(MIRA 16:1)

(Agriculture—Economic aspects—Study and teaching)

FRENKEL', Z. G., prof.; MALIYENKO-PODVYSOTSKIY, A.G., kand. tekhn. nauk;  
KHODASEVICH, B.G., kand. sel'skokhoz. nauk

Concerning the article entitled "Objectives in safeguarding the sanitation of natural waters during the new phase in the development of the chemical industries" by Professor S.N. Cherkinskii, corresponding member of the Academy of Medical Sciences of the U.S.S.R. Gig. i san. 24 no.5:62-63 My '59. (MIRA 12:7)

(INDUSTRIAL WASTES) (SEWAGE IRRIGATION)  
(CHERKINSKII, S.N.)



KHODASEVICH, B. G.

Timiriazev, Kliment Arkad'evich

Master and develop the ideas of K.A. Timiriazev. B.G. Khodasevich. Sel. i sem. 20,  
No. 3, 1953.

Monthly List of Russian Accessions, Library of Congress  
June 1953. UNCL.

KHODASEVICH, B.G., kand. sel'skokhoz, nauk, dotsent (Leningrad)

Production & use of nitrogen fertilizers in the northwestern  
region of the U.S.S.R. Trudy LIEI no.37:57-59 '61. (MIRA 18:4)

BADAR'YAN, G.G.; TYUTIN, V.A.; CHEREMUSHKIN, S.D.; ZUZIK, D.T.;  
 KHODASEVICH, B.G.; FRAYER, S.V.; GUSAROV, Ye.I.; KAZANSKIY,  
 A.M.; KASSIROV, L.N.; KARAYEV, S.A.; ABRAMOV, V.A.;  
 VASIL'YEV, N.V.; BUGAYEV, N.F.; SAPIL'NIKOV, N.G.; KASTORIN,  
 A.A.; RUDNIKOV, V.N.; YAKOVLEV, V.A.; PEREMYKIN, V.I.;  
 ISAYEV, A.P.; KUZ'NICHEV, N.N.; IL'IN, S.A.; PRONIN, V.A.;  
 LUK'YANOV, A.D.; SHAKHOV, Ya.K.; IL'ICHEV, A.K., kand. sel'-  
 khoz. nauk; KOGAN, A.Ya.; TSYNKOV, M.Yu.; BABIY, L.T.;  
 GORBUNOV, I.I.; KOVALEV, A.M.; ROMANCHENKO, G.R.; BRODSKAYA,  
 M.L., red.; IVANOVA, A.N., red.; GUREVICH, M.M., tekhn. red.;  
 TRUKHINA, O.N., tekhn. red.

[Economics of agriculture] Ekonomika sotsialisticheskogo sel'-  
 skogo khoziaistva; kurs lektsii. Moskva, Sel'khozizdat, 1962.  
 710 p. (MIRA 15:10)

(Agriculture—Economic aspects)

KHODASEVICH, Boris Georgiyevich; PANIN, N.S., red.; PONOMAREVA,  
A.A., tekhn. red.

[Economics of agricultural transportation] Ekonomika sel'-  
skokhoziaistvennykh perevozok. Moskva, Ekonomizdat, 1963.  
196 p. (MIRA 16:12)  
(Economics of agricultural transportation)

KORNILOV, M.F., doktor sel'skokhozyaystvennykh nauk; KHODASEVICH, B.I.;  
CHURKIN, K.G.

Using town construction and industrial waste for the  
fertilization of fields. Zemledelie 24 no.10:62-68  
0 '62.

(MIRA 15:11)

1. Severo-Zapadnyy nauchno-issledovatel'skiy institut  
sel'skogo khozyaystva (for Kornikov). 2. Leningradskiy  
sel'skokhozyaystvennyy institut (for Khodasevich).
  3. Ural'skiy nauchno-issledovatel'skiy institut  
sel'skogo khozyaystva (for Churkin).
- (Fertilizers and manures)  
(Waste products)

KHODASEVICH, B.G.

Economic efficiency of road construction for agricultural purposes.  
Avt. dor. 28 no.1:3 Ja '65.

(MIRA 18:3)

USSR/Cultivated Plants - Fodders.

11-6

Abs Jour : Ref Zhur - Biol., No 9, 1958, 39366

Author : Kodasovich, E.V.

Inst : Institute of Biology AS USSR

Title : Alfalfa Varieties Offering Good Prospects in Byelorussia

Orig Pub : Byel. Inst-a biol. AN USSR, Vyp. 2, 1956 (1957), 12-15

Abstract : II abstract.

Card 1/1

- 93 -

KHODASEVICH, N.V.

Promising alfalfa varieties under conditions prevailing in White  
Russia. Biul. Inst. biol. AN BSSR no.2:12-15 '57. (MIRA 11:2)  
(White Russia--Alfalfa--Varieties)



KHODASEVICH, M.V.

Alfalfa varieties of promise for White Russia. Report No.2.  
Biul.Inst.biol.AN BSSR no.3:68-72 '58. (MIRA 13:7)  
(WHITE RUSSIA--ALFALFA--VARIETIES)

KHODASEVICH, E.V.

Studying the amino acid content of proteins and free amino acids in alfalfa. Biol.Inst.biol.AN BSSR no.3:133-135 '58.

(AMINO ACIDS)

(ALFALFA)

(MIRA 1:1:7)

KHODASEVICH, E. V.

Cand Biol Sci - (diss) "Biological characteristics and biochemical characteristics of several varieties of alfalfa introduced in the Belorussian SSR." Minsk, 1961. 19 pp; (Belorussian State Univ imeni V. I. Lenin); 220 copies; price not given; (KL, 6-61 sup, 209)

KHODASEVICH, E.V.

Frost resistance of different varieties of alfalfa in White  
Russia. Biul. Inst. biol. AN BSSR no.6:170-174 '61. (MIR, 15:3)  
(WHITE RUSSIA--ALFALFA--VARIETIES)  
(PLANTS--FROST RESISTANCE)

GODNEV, T.N.; KHODASEVICH, E.V.

Concerning the structure of the lamellae of chloroplasts.  
Biul. Inst. biol. AN BSSR no.6:111-114, '61. (MIRA 15:3)  
(CHROMATOPHORES)  
(PHOTOSYNTHESIS)

GODNEV, T.N., akademik; AKULOVICH, N.K.; KHODASEVICH, E.V.

Participation of the etherified and unetherified forms of the  
protochlorophyll of etiolated sprouts in the formation of  
a-chlorophyll. Dokl. AN SSSR 156 no.4:920-923 Ja '63.  
(MIRA 16:6)

1. Institut biologii AN BSSR.  
(Chlorophyll) (Etiolation)

ACCESSION NR: AP4036730

S/0020/64/156/002/0471/0473

AUTHOR: Godnev, T. N. (Academician, AN BSSR); Khodasevich, E. V.; Akulovich, N. K.

TITLE: On the secondary action of powerful light pulses on the stability of photosynthesizing systems

SOURCE: AN SSSR. Doklady\*, v. 156, no. 2, 1964, 471-473

TOPIC TAGS: photosynthesis, chloroplast, chlorophyll, transmutation, pigment system, protochlorophyll, quantum light energy

ABSTRACT: The authors were interested in tracing the effect of powerful light intensities, during long periods of exposure, so as to quantitatively study the capacity of chloroplasts to repeat photochlorophyll production and chlorophyll storage during subsequent illumination by diffused light. In addition, the after-effects of repeated powerful short flashes were studied. The experimental subjects were 12-day old etiolated intersprouts of corn. The plants were exposed at 6-second intervals to powerful ( $10^{10}$  erg/cm-sec) light sources having frequencies of 1, 2, 10, and 100 pulses per sec and a duration of 1/500 sec. It was concluded that

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the photochlorophyll of the plants was transmuted into chlorophyll (chlorophyllide + chlorophyll) from 42% (at 1 pulse) to 36% (at 100 pulses) of protochlorophyll. It was determined that the transmuted protochlorophyll gave no evidence of destructive action on the pigment system and that the process of protochlorophyll accumulation continued normally. The photosynthesizing system, as a whole and contiguous to the chloroplast of plasma, was not damaged by the brief exposure to large amounts of quantum light energy. Orig. art. has: 2 tables.

ASSOCIATION: Institut eksperimental'noy botaniki i mikrobiologii. Akademii nauk BSSR (Institute of Experimental Botany and Microbiology, Academy of Sciences, BSSR)

SUBMITTED: 07Jan64

DATE ACQ: 16Jun64

ENCL: 00

SUB CODE: IS

NO REF SOV: 001

OTHER: 008

Card 2/2



GODNEV, T.N., akademik; KHODASEVICH, E.V.

Pigment biosynthesis in some evergreen plants at subfreezing temperatures. Dokl. AN SSSR 160 no.5:1206-1208 F '65.

(MIRA 18:2)

1. Institut eksperimental'noy botaniki i mikrobiologii AN BSSR.
2. AN BSSR (for Godnev).

KHODASEVICH, I.A.; KIRILKIN, G.Ye.; MIKHALENKO, G.S.

Railroad worker with initiative. Put' i put.khoz. 6 no.5:44 '62.

1. Nachal'nik Mogilevskoy distantzii Belorusskoy dorogi (for  
Khodasevich). (MIRA 15:4)

(Railroads---Employees)

SONGINA, O.A.; KHODASEVICH, S.A.

Part played by Zimmerman-Reinhardt's solution in the permanganometric determination of iron. Zhur.anal.khim. 16 no.5: 516-522 S.O '61.  
(MIRA 14:9)

1. Kazakh State University, Alma-Ata.  
(Iron--Analysis)

SONGINA, O.A.; DAUSHEVA, M.R.; KHODASEVICH, S.A.

Amperometric titration of manganese with permanganate in the presence of pyrophosphate. Zhur.anal.khim. 17 no.8:966-971 N '62. (MIRA 15:12)

1. S.M.Kirov Kazakh State University, Alma-Ata.  
(Manganese--Analysis) (Conductometric analysis)

ARABADZHI, V.I. (Minsk); KHODASEVICH, S.G. (Minsk)

Damage of trees by lightning. Priroda 52 no.2:99-100 '63.  
(Lightning) (Trees) (MIRA 1612)

KHODASEVICH, S.G.

Study of the electric current flow in broad-leaved and coniferous trees. Dokl. AN SSSR 155 no. 4:967-969 Ap '64. (MIRA 17:5)

1. Predstavleno akademikom A.L.Kursanovym.

~~KHODASEVICH, V.G.~~

LIFANOV, P., otvetstvennyy za vydusk, YUSUPOV, G.G., otvet.red.; LIFANOV, P.K.,  
red.; POGREBINSKAYA, K.A., red.; KRAYNYUK, P.K., red.; ~~KHODASEVICH,~~  
~~V.G., red.; KHAMRAYEV, L., red.; BARKOVSKIY, I.I., red. YUGINBURG,~~  
~~S.M., red.; KOGAN, V.S., tekhn.red.~~

[Economy of Samarkand Province; a statistical manual] Narodnoe  
khosiaistvo Samarkandskoi oblasti; statisticheskii sbornik.  
Samarkand, 1958. 95 p. (MIRA 11:9)

1. Samarkand (Province). Oblastnoye statisticheskoye upravleniye  
(Samarkand Province--Statistics)

PRECEDING CARDS  
FROM KHOCHOLAW, G.  
TO KHODASEVICH, V.G.  
ARE OUT OF ORDER.  
IGNORE THEM!



ALL CARDS  
FOLLOWING THIS  
ARE IN CORRECT  
ALPHABETICAL ORDER  
STARTING FROM KHMURAM.I

5(1,3)  
AUTHORS:

SOV/153-2-4-27/32  
Suvorov, B. V., Rafikov, S. R., Khmura, M. I., Kudinova, V. S.,  
Kostromin, A. S.

TITLE:

Direct Synthesis of Dinitriles of the Aromatic Sequence From  
Dialkyl Benzenes and Terpene Hydrocarbons

PERIODICAL:

Izvestiya vysshikh uchebnykh zavedeniy. Khimiya i khimicheskaya  
tekhnologiya, 1959, Vol 2, Nr 4, pp 614 - 618 (USSR)

ABSTRACT:

Aromatic dinitriles are promising raw materials for the produc-  
tion of phthalic acids and diamines of the aliphatic-aromatic  
and alicyclic sequence. These again are the initial products  
for the production of polyesters and polyamides (Ref 1). The  
latter, however, can be directly obtained from dinitriles by  
their interaction with secondary and tertiary highly molecular  
alcohols (Ref 2). Hence the great interest in the new ways of  
producing dinitriles of various structures. After giving a sur-  
vey of publications (Refs 3,4) the authors state that they have  
been dealing with the catalytic ammonolysis of organic compounds  
for years (Refs 5-7). With regard to their task of synthesizing  
dinitriles they pay special attention to the ammonolysis of  
dialkyl benzenes especially in the presence of air. The apparatus

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Direct Synthesis of Dinitriles of the Aromatic Sequence SOV/153-2-4-27/32  
From Dialkyl Benzenes and Terpene Hydrocarbons

used for this purpose is filled with a granulated catalyst. Mixed catalysts of oxides of vanadium, tin, titanium, and some other elements with varying valence proved to be most effective. p-Xylene is the most accessible and promising raw material in the synthesis of dinitrile of terephthalic acid. Hence its transformations were investigated most thoroughly. Figure 1 shows the qualitative composition and the quantitative conditions of the reaction products of a characteristic experimental series. Hence it appears that oxidative ammonolysis yields a very complicated scale of substances. The main products, however, are the dinitrile and p-tolunitrile required. The composition of the reaction products greatly depends on the reaction conditions. The process can be directed to the special formation of any product by the choice of the respective reaction products. The structure of the initial product is also of importance. In addition to p-xylene, other p-dialkyl benzenes as well as hydroaromatic and terpene hydrocarbons underwent the reaction mentioned. All of them yielded terephthalic-acid dinitrile, and may thus be considered a source of reserve raw materials. Dinitriles of isophthalic and o-phthalic acid are

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Direct Synthesis of Dinitriles of the Aromatic Sequence SOV/153-2-4-27/32  
From Dialkyl Benzenes and Terpene Hydrocarbons

very interesting. In addition to xylylene diamines (for the production of high-melting, fiber-forming polyamides), other valuable compounds can be obtained: orthoisomer (for phthalocyanine dyes (Ref 9), for refractory varnishes and glasses). Their yield exceeded 50%. The ammonolysis mentioned can also take place without oxygen (Ref 3), but the yield of dinitriles remains small (5-10%) (Fig 2). Aromatic aldehydes and acids react readily with ammonia under similar conditions and give nitrile yields close to theoretical ones (Ref 10). A report on the above paper was given at the All-Union Conference on "Ways of Synthesis of Initial Products for the Production of High Polymers" which took place in Moscow from September 29 to October 2, 1958. There are 2 figures and 11 references, 8 of which are Soviet.

ASSOCIATION: Institut khimicheskikh nauk AN KazSSR (Institute of Chemical Sciences of the Academy of Sciences, Kazakh SSR)

Card 3/3

SUVOROV, B.V.; RAFIKOV, S.R.; ZHUBANOV, B.A.; KOSTROMIN, A.S.; KUDINOVA, V.S.;  
KAGARLITSKIY, A.D.; KHMURA, M.I.

Catalytic synthesis of the dinitrile of terephthalic acid.  
Zhur. prikl. khim. 36 no.8:1837-1847 Ag '63. (MIRA 16:11)

KHMURNY, Yan [Hmurny, J.]

High-frequency wattmeter with nonlinear resistances. Izv. vysl. ucheb. zav.; radiotekh. 6 no.5:467-475 S-D '63. (MIRA 17:1)

1. Rekomendovana kafedroy slabotochnoy i vysoko-chastotnoy elektrotehniki Slovatskogo politekhnicheskogo instituta, Bratislava.

KHMURNY, Ya. A.

Measurement of High-Frequency Transmitted Power." Cand Tech Sci, Moscow Electrical Engineering Inst of Communications." 18 Feb 54. Dissertation (Vechernysya Moskva Moscow, 8 Feb 54)

SO: SUM 186, 19 Aug 1954

USSR/Physics - Crystal Lattice  
Atomic Structure

Sep 49

"Precision Measurement of Crystal Lattice Constants,"  
A. Z. Khmydskiy, Kiev State U, 6 3/4 pp

"Zavod Lab" Vol XV, No 9

Method for measuring phases of lattice structure, using larger specimens and greater intervals between crystals and photographic film, was investigated with aluminum and iron. Obtained results with an accuracy of  $2 \cdot 10^{-3}\%$  (exceeding the accuracy of most existing methods). Method may be used in accurate measurement of phases of crystal lattices of the cubic system, in

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USSR/Physics - Crystal Lattice (Contd)

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determination of the linear coefficient of thermal expansion, and in study of processes connected with small variations in phases of the lattice. It is easily adaptable to any plant laboratory where structural analysis is being carried out.

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KHMYDSKIY, A. Z.



KHMYLEV, B.V.

Phase diagrams of iron-nickel-sulfur systems. TSvet.net.29 no.3:  
89 Mr '56. (Iron-nickel alloys) (MIRA 9:7)

KHMYROV, A.B., podpolkovnik meditsinskoy sluzhby; DAVYGORA, N.D.,  
podpolkovnik meditsinskoy sluzhby

Organization of regimental medical station. Voen.-med. zhur.  
no. 1:13-19 Ja '60. (MIRA 14:2)  
(MEDICINE, MILITARY)

LITVINENKO, P.M., podpolkovnik meditsinskoy sluzhby; KHYLYOV, A.V., podpolkovnik meditsinskoy sluzhby; KURGUZOV, S.S., podpolkovnik meditsinskoy sluzhby [deceased]

Food poisoning caused by the Sonne bacillus. Voen. med. zhurn.  
no.4:23-25 Ap '59. (MIRA 12:8)

(SHIGELLA infections,  
sonnei food pois. (Rus))  
(FOOD POISONING, microbiol.  
Shigella sonnei (Rus))

1. SEKACHEV, N. Ye.; KHMYROV, A. V.
2. USSR (600)
4. Sheep Breeds
7. Raising Alai fat-rumped sheep. Sots. zhiv. 15, No. 5, 1953.
9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

L 30406-66 EWT(1)/FCC GW  
ACC NR: AP6010418

SOURCE CODE: UR/0423/66/000/001/0015/0018

AUTHOR: Alizade, A. S.; Kuliyev, D. A.; Khmyrov, V. A.

50  
B

ORG: Azerbaydzhan Scientific-Research Power Engineering Institute im. I. G. Yes'man  
(Azerbaydzhanskiy nauchno-issledovatel'skiy institut energetiki)

TITLE: Investigation of the electrical structure of thunderclouds by the radiosonde method

SOURCE: Za tekhnicheskii progress, no. 1, 1966, 15-18

TOPIC TAGS: ~~cloud formation~~, cloud physics, electric field, radiosonde, *ATMOSPHERIC ELECTRIC PHENOMENON*, *ATMOSPHERIC CLOUD*, *ATMOSPHERIC DISTURBANCE*

ABSTRACT: Scientific research has been intensified recently in the study of the electrical structure of thunderclouds. The greatest amount of results is provided by specially equipped aircraft, geophysical rockets, radiosonde methods, and radar. The first experiments on the utilization of radiosonde for the measurement of the intensity of the electrical field in thunderclouds were performed in 1948 - 1949 (Belin, Proc. P. Soc., 60, 340, 1948; Byers, Thund Elec., 1953). In 1955 large scale work was performed by V. I. Arabadzhi (Grozy i grozovyye protsessy. Belgosizdat, 1960). The highest electrical field intensity recorded in these investigations amounted to 200 v/cm, which agrees with the data

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UDC: 621.317.729.2: 551.576

L 30406-66

ACC NR: AP6010418

obtained earlier (100-300 v/cm) (Simpson a. Serase-Proc. R. So., 161, 309. 1937), and which deviates somewhat from the corresponding results obtained by Gunn (Meter. 2, 2, 1954). The present authors express the hope that the application of radiosondes in future investigations will make it possible to accumulate the necessary data which can be used for a more rigid formulation of the electrical structure of thunderclouds. The authors study static method of processing measurement data in the presence of abrupt shifts of radio transmitter antennas. A discussion is given on the selection of the receiving equipment, the design characteristics of the receiving antenna, and the circuit of the radiosonde transmitter. The order in which the recordings should be made is discussed together with methods of data processing. In conclusion, the authors point out that the selection of the working frequency of the radiosonde transmitter was made on the basis of the "radio-communication regulations" issued in Geneva in 1959 and ratified by the Presidium of the Supreme Soviet of the Soviet Union on February 9 1961. Orig. art. has: 6 figures and 1 table.

[08]

SUB CODE: 04 / SUBM DATE: none / ORIG REF: 001 / OTH REF: 004 / ATD PRESS:

5017

Card 2/2

cc

KHMYROV, V. I.

Acad Sci Kazakh SSR. Inst of Power Engineering. Alma-Ata, 1956.

KHMYROV, V. I.- "Investigation of the working process of a four-stage engine burning hydrogen-air mixtures." Acad Sci Kazakh SSR. Inst of Power Engineering. Alma-Ata, 1956.  
(Dissertation for the Degree of Candidate in Technical Sciences.)

SO: Knizhnaya Letopis' No. 13, 1956.

KHMYROV, V.I.

Features in using gas turbines in the electric power systems of  
Kazakhstan. Trudy Inst. energ. AN Kazakh. SSR 2:88-94 '60.

(MIRA 15:1)

(Kazakhstan--Electric power production)



KHMYROV, V.I.; VYPOLZOVA, M.N.; BEKMET'YEV, R.M.

Technical and economic possibilities of wind energy accumulation  
in the form of hydrogen and prospects for its use. Izv. AN  
Kazakh. SSR. Ser. energ. no.2:109-128 '60. (MIRA 14:3)  
(Wind power)

LAVROV, B.Ye.; KHYROV, V.I.

Certain results of the study of the operating process of a hydrogen  
piston engine. Trudy Inst. energ. AN Kazakh. SSR 2:326-332 '60.  
(MIRA 15:1)

(Gas and oil engines)

KHMYROV, V.I.; KHASENOV, Zh.Kh.

Method for determining the optimum parameters of gas turbine systems. Izv. AN Kazakh. SSR. Ser. energ. no.1:36-46 '61.

(MIRA 14:12)

(Gas turbines)

KHMYROV, V.I.

Possibility of the use of gas turbine units in proposed power  
plant construction. Trudy Inst.energ.AN Kazakh.SSR 3:53-67  
'61 (MIRA 14:12)

(Kazakhstan--Power engineering)  
(Gas turbines)

KHASENOV, Zh.Kh.; KHYROV, V.I.

Determining the optimum parameters and operation methods of  
gas turbines for district heating plants. Trudy Inst.energ.  
AN Kazakh.SSR 3:196-200 '61. (MIRA 14:12)  
(Gas turbines)  
(Heating from central stations)

KHMYROV, V.I., kand.tekhn.nauk; MALYKH, S.P., inzh.

Economic efficiency of gas turbine systems operating on mine  
methane. Elek. sta. 33 no.8:24-25 Ag '62. (MIRA 15:8)  
(Gas turbines) (Methane)

ACC NR: AP6033497

SOURCE CODE: UR/0413/66/000/018/0121/0121

INVENTOR: Kirpichnikov, B. N.; Khmyrov, V. I.

ORG: none

TITLE: Instrument for determining the adhesion of aerosol particles to a surface. Class 42, No. 186184 [announced by Kazakh Scientific Research Institute of Power Engineering (Kazakhskiy nauchno-issledovatel'skiy institut energetiki)]

SOURCE: Izobret prom obraz tov zn, no. 18, 1966, 121

TOPIC TAGS: aerosol analyzer, aerosol adhesion, surface adhesion, aerosol, air pollution instrument, aerosol chemistry, adhesion

ABSTRACT: A description is given for a device for determining the adhesion of aerosol particles to a surface. The instrument consists of an elastic filament made of a nonmagnetic material, such as quartz, and an electromagnet which sets up a force for removing aerosol particles from a surface. The time at which a particle is removed is noted with a microscope, and the adhesive force is estimated from readings of an instrument connected to the electromagnet circuit which registers the intensity of the current in the circuit at the time of removal. The accuracy of this device has been

Cord 1/2

UDC: 620.1.05:620.193.13

ACC NR: AP6033497

improved by installing the filament in a fixed position and by flattening the operational end. This fixes the direction and invariability of the point of application, as well the direction of the force set up by the electromagnet acting on the particles.

[WA-50; CBE No. 12]

SUB CODE: 07/ SUBM DATE: 23Sep65/

Card 2/2



**KHMYROV, I. I., ANOSOVA, M. N.**

Treatment of exsena with roentgen rays irradiation of  
the higher centers of the central nervous system, Vest.  
rentg., Moskva No.2:16-19 Mar-April 1953. (CJML 25:5)

1. Of the Department of Skin and Venereal Diseases (Head --  
Prof. P. M. Zalkan) and the Department of Roentgenology  
(Head -- Docent V. Kh. Kogan) of Yaroslavl' Medical Institute.

CHERNUKHIN, A.Ye., inzh., red.; ASHKENAZI, E.L., red.; YEFREMOVA, M.K., red.; IVANOV, N.F., red.; KRASNOBRODSKAYA, L.L., red.; MOSHENTSEVA, I.I., red.; KHANDIN, V.Ye., red.; BEL'CHUK, V.I., mladshiy red.; KOMAROVA, Ye.B., mladshiy red.; SMIRNOVA, N.V., mladshiy red.; KHYROVA, I.I., mladshiy red.; BRUDNO, K.F., tekhn. red.; KOLESNIKOVA, A.P., tekhn. red.

[English-Russian technical dictionary]Anglo-russkii politekhnicheskii slovar'. Moskva, Glav. red. inostr. nauchno-tekhn. slovarei Fizmatgiza, 1962. 663 p. (MIRA 15:11)

(English language—Dictionaries—Russian)  
(Technology—Dictionaries)

KHMYROVA, N.A.

Polynomials with small prime divisors. Dokl. AN SSSR 155 no.6:  
1268-1271 Ap '64. (MIRA 17:4)

1. Predstavleno akademikom I.M.Vinogradovym.

ACC NR: AP7011844

SOURCE CODE: UR/0038/66/030/006/1367/1372

AUTHOR: Khuyrova, N. A.

ORG: none

TITLE: Polynomials with small, simple divisors. II

SOURCE: AN SSSR. Izvestiya. Seriya matematicheskaya, v. 30, no. 6, 1966, 1367-1372

TOPIC TAGS: polynomial, polynomial equation

SUB CODE: 12

ABSTRACT: Rules are established for the distribution of numbers with small, simple divisors in polynomial sequences. A theorem is proven:

In known notations the expression

$$P_f(x, s) < c(f) \cdot x \cdot \exp\left(-\frac{1}{s} \ln \frac{1}{xs}\right), \quad \frac{\ln \ln s}{\ln s} < \alpha := \frac{\ln x}{\ln s} < \frac{1}{s},$$

is valid, and for any fixed  $s > 0$  in the interval  $(0, 1/s)$

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UDC: 511

0232

0446

ACC NR: AP7011844

the expression  $F^{(n)}(x, z) < \frac{c(f)}{z} \pi(x) \cdot \exp\left(-\frac{1-s}{a} \ln \frac{1}{az}\right)$ ,  $\frac{\ln \ln x}{\ln z} < a < \frac{1}{s}$ ,

is valid, where  $c(f)$  is a positive constant depending on  $\pi$ , the degree of the polynomial  $f$  and its coefficients. Orig. art. has:

27 formulas. [JPRS: 40,423]

Card 2/2

L 01118-66 EWT(m)/EWP(j) RM

ACCESSION NR: AP5021999

UR/0288/65/000/14/0076/0076  
676.1.046(088.8)

AUTHOR: <sup>44</sup>Fomicheva, M. M.; <sup>44</sup>Borisov, S. N.; <sup>44</sup>Khmyrova, N. Ye. <sup>44</sup>

TITLE: A method for stabilizing siloxane rubber stocks. Class 39, No. 172969 <sup>15</sup>

SOURCE: Byulleten' izobreteniy i tovarnyky znakov, no. 14, 1965, 76

TOPIC TAGS: synthetic rubber, siloxane

ABSTRACT: This Author's Certificate introduces a method for stabilizing siloxane rubber stocks containing highly active fillers by adding a dialkylsilyl ester of pinacol to the mixture. The period over which the technological properties of the stocks and the technical properties of the vulcanized products are maintained is increased by using 1,3,3,4,4-pentanemethyl-1-ethyl-1-sila-2,5-dioxycyclopentane.

ASSOCIATION: none

SUBMITTED: 10Jun53

ENCL: 00

SUB CODE: MT

NO REF SOV: 000

OTHER: 000

Card 1/1 DP

KHBYZ, G.T.; Gned Med Sci--(disc) "Study of the effectiveness of  
psycho-prophylactic <sup>(anesthetization in)</sup> ~~anesthetization in~~ Odessa, 1958. 16 pp (Odessa  
State Med Inst im N.I.Pirogov), 200 copies (PL, 48-58, 107)

-80-

KHMYZ, O.T. assistant

Effect of psychoprophylactic preparation for labor on bisulfite-binding substances in the blood during labor.

Akush. i gin. 34 no.2:84-86 Mr-Ap '58

(MIRA 11:5)

1. Iz kafedry akusherstva i ginekologii (nauchnyy rukovoditel' - zaslushennyy deyatel'nauki prof. A.M. Agarenev) lechebnogo fakul'teta Odesskogo gosudarstvennogo meditsinskogo instituta.

(LABOR, blood in

bisulfite binding substances, eff. of psychoprophylactic method of prep. (Rus))



MALININ, A.I., prof.; KHMYZ, G.T., assistant (Odessa)

Some results of introducing psychoprophylactic preparation of  
parturients. Fel'd. i akush. 26 no. 1:29-32 Ja '61.

(MIRA 14:2)

(CHILDBIRTH—PSYCHOLOGY)

KHMIZ, G.T. [Klmyz, H.T.], assistant

Anesthesia in labor with promedol and iscpromedol in connection with psychoprophylactic preparation. Ped., akush. i gin. 23 no.6:47-49 '61. (MIRA 15:4)

1. Kafedra akusherstva i ginekologii vrachebnogo fakul'teta (zav. - prof. A.I.Malinin) Odesskogo meditsinskogo instituta (rektor - prof. I.Ya.Deyneka).

(PROMEDOL) (ISOPROMEDOL) (CHILDBIRTH—PSYCHOLOGY)

AKHMEROV, M.M., NERED, N.T., KHMYZ, I.Ye.

Effect of the size gas between cylinders and pistons of air boring machines on their performance. Izv. AN Kazakh. SSR. Ser. gor'dela no.1:79-86 '60. (MIRA 13:10)

(Boring machinery--Pneumatic driving)

NERED, N.T.; AKHMETOV, M.M.; KHYMZ, I.Ye.

Performance characteristics of PR-256 and PR-241 high-speed  
perforators. Izv. AN Kazakh. SSR. Ser. gor. dela no.1:70-71  
'61. (MIRA 15:2)  
(Boring machinery)

BYKHOVETS, G.F.; KHRMYZ, S.I.; SHABLIY, L.A.

Device for measuring the deflection of bore holes in directed  
boring. Izv.tekh. no.9:16-17 S '62. (MIIA 15:11)  
(Boring) (Electric instruments)

KIBYENIKOVA, A.A.

Training the student's thinking for the geography lesson. Geog.  
v shkole no.6:40-46 M-D '53. (MLRA 6:12)  
(Geography--Study and teaching)

KHMYZNIKOVA, Ye.P.

Use of pharmacological methods in the study of sugar indexes in diseases of the central nervous system. Vop. psikh. i nevr. no.3: 161-167 '58.  
(MIRA 12:3)

1. Iz kliniki nervnykh bolezney Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta.

(NERVOUS SYSTEM--DISEASES) (BLOOD SUGAR)  
(PHEANINE) (BARBITAL)

~~KHMYZNIKOVA, Y. P.~~

Carbohydrate metabolism in peptic ulcer and its modification following sleep therapy. Trudy ISQNI 20:257-261 '54. (MLA 10:7)

1. Klinika nervnykh bolezney Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta, sav. kliniko - chlen-korrespondent AMN SSSR prof. I.Ya. Resdol'skiy i kafedra propedavtiki vnutrennikh bolezney Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta sav. kafedroy - prof. S.M. Rysa

(SLEEP, therapeutic use,  
peptic ulcer, eff. on blood sugar)  
(PEPTIC ULCER, therapy,  
sleep ther., eff. on blood sugar)  
(BLOOD SUGAR, in various diseases,  
peptic ulcer, eff. of sleep ther.)



RAMYZNIKOVA, E. P.

The effect of increased functional loads upon the cholesterol and glucose levels of gastric ulcer cases during sleep treatment. P. A. Makkavel'ski and P. P. Kharyzina. *Soviet Med Inst Leningrad* 1966; 6:11-12.

THIS SUBJECT IS CITED IN: *Abstracts of the 1966-67 session of the 15th Congress of the International Union of Pure and Applied Chemistry* (1967) 1:11-12.

A. S. Mirkin

KHNAYEV, A.P.; GRABCHAK, P.A.

Using surface-active agents in petroleum production in the Anasta-  
siyevka-Troitskoye field. Neftprom. delo no.9:16-20 '65. (MIRA 18:10)

1. Neftpromyslovoye upravleniye "Priazovneft".

KHNIZHNIK, Z. B.

STARIKOVICH, S. K. and KHNIZHNIK, A. B. Tube Expanding Machine (Elektromekhanicheskaya Val'tsovka dlya Trub), pp. 21-22

A machine tool used for expanding of boiler-tube ends is described. (Drawings)

SO: PROMYSHLENNAYA ENERGETIKA, No. 11, Nov. 1952, Moscow (1613006)

~~SECRET~~ KHNIZHNYAK, N.A.

PAYNBERG, Ya.B.; KHNIZHNYAK, N.A.

Artificially anisotropic media. Zhur.tekh.fiz. 25 no.4:711-719

Ap '55.

(MLRA 8:5)

(Wave guides) (Dielectrics) (Electric waves)

KHNOKH, L. I.

KHNOKH, L. I. -- "Closed Fractures of the Pelvis." Acad Sci Latvian SSR, Inst of  
Experimental Medicine, 1953  
(Dissertation for the Degree of Candidate of Medical Sciences)

SO: Izvestiya Ak. Nauk Latviyskoy SSR, No. 9, Sept., 1955

KHNOKH, L.I.

LANDA, B.A.; KHNOKH, L.I.

Time and indications for surgery in patients with acute  
cholecystitis [with summary in English, p.152]. Khirurgiia 33  
no.2:59-64 F '57. (MLRA 10:6)

1. Iz gosital'noy khirurgicheskoy kliniki Rishskogo meditsinskogo  
instituta (dir. - chlen-korrespondent Akademii meditsinskikh nauk  
SSSR prof. Y.M.Burtniyev, zav. kafedroy - prof. A.F.Lepukaln) i  
iz khirurgicheskogo otdeleniya 1-y Rishskoy gorodskoy klinicheskoy  
bol'nitsy (glavnyy vrach E.V.Cherepovich).

(CHOLECYSTECTOMY

indic. & time-limits for surg. (Rus))

KHNOKH, L. I., dotsent (Riga, ul. Gor'kogo, d. 121, kv. 3)

Fractures of the transverse processes of the lumbar vertebrae  
in pelvic fractures. Ortop., travm. i protez. no.11:45-46 '61.  
(MIRA 14:12)

(LUMBAR CURVE--FRACTURE) (PELVIS--FRACTURE)

KRAPCHAN, Ye.; KHMURIN, P.; SUVOROV, K.

Let's finish what we have begun. Okhr.truda i sots.strakh.  
no.12:37-39 D '59. (MIRA 13:4)

1. Predsedatel' postoyanno deystvuyushchego proizvodstvennogo  
soveshchaniya Orshanskogo l'nokombinata (for Krapchan). 2. Predse-  
datel' komissii okhrany truda Orshanskogo l'nokombinata (for  
Khmurin).

(Orsha—Textile industry—Hygienic aspects)



L 13581-63

EWI(1)/EWI(m)/HDS AMD/ASD/AFTTC AR/X

ACCESSION NR: AP3003925

8/0205/63/003/001/0514/0517 59

AUTHOR: Gorizontov, P. D.; Fedorova, T. A.; Zharkov, Yu. A.; Tereshchenko, O. Ya.; Khnyachev, S. S.; Sbitneva, M. F.

TITLE: Changes in nucleoside content in rat urine during radiation injury 19

SOURCE: Radiobiologiya, v. 3, no. 4, 1963, 514-517

TOPIC TAGS: nucleoside, radiation injury, urinalysis, DNA metabolism, Dische reaction, Dische-positive, desoxyriboside, desoxycytidin, thymidin, chromatography, x-ray, cobalt-60, gamma ray, bone marrow, biomyelin

ABSTRACT: Disruption of DNA metabolism during radiation injury leads to the appearance of unusual amounts of nucleosides in the urine, which can serve as an index of radiation injury. Experiments were performed to determine the post-irradiation appearance of substances in urine producing the Dische reaction and to test the effect of the introduction into irradiated animals of bone-marrow cells possessing a therapeutic effect. The presence of desoxyribosides (desoxycytidin and thymidin) in the urine of experimental animals was investigated by chromatography. White rats were subjected to absolute minimum lethal doses (600 r) of gamma rays from Co<sup>60</sup> and of x-rays. X-ray irradiation was produced by

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ACCESSION NR: AP3003925

RUM-3 equipment at 180 kv, 15 mamp, 0.5 mm Cu filter and 1 mm Al filter at 32.3  $\mu$ /min. Gamma irradiation involved the use of EGO-2 equipment at 25--276  $\mu$ /min. Survival span of the animals was 6-12 days after irradiation. The introduction of bone-marrow cells, accompanied by the oral administration of 3 mg of biomyacin two times a day, resulted in survival of 50% of the experimental animals (compared to no survival in the controls) and a smaller increase of Dische-positive substances in the urine of the experimental animals than in the control animals. During the first day after irradiation by the absolute minimum lethal dose the urine of animals not given bone-marrow cells was found to contain 25-30 times as much desoxycytidin and 5 times as much timidin as normal nonirradiated animals. Orig. art. has: 2 figures.

ASSOCIATION: none

SUBMITTED: 10Sep62

DATE ACQ: 15Aug63

ENCL: 00

SUB CODE: AM

NO REF SOV: 004

OTHER: 008

Cord 2/2

KHNYCHEV, S. S. KALICHOU, U. S.

SESSION A-4-3 : Post-Irradiation Treatments in Mammals

(a)  
Changes in the Content of Nucleosides in Animal Urine Following Radiation Damage

P. D. Gorkhator, T. A. Fedorova, M. P. Solntseva, Yu. A. Zharkov and V. S. Kalichou

Changes in the level of DNA metabolites of body fluids are a specific index of radiation damage, and the estimation of their content in the urine may serve as a good biochemical test for this damage. The test may be used to evaluate therapeutic agents applied for the treatment of radiation sickness, as well as for the evaluation of drugs protecting animals against lethal radiation doses.

Using paper chromatography and ion exchange column methods the deoxyribosides deoxycytidine, deoxythymidine, deoxyadenosine and deoxyguanosine were identified in the urine of normal and irradiated animals. Quantitative changes in their content in the 24 hr specimens of rat, mouse and dog urine were established during the course of radiation diseases induced by lethal doses of X- and  $\gamma$ -rays.

The deoxyribosides were estimated in the urine of normal and irradiated rats following the transplantation to them of the bone marrow cells. This was done in order to elucidate some aspects of the mechanism of biochemical changes, and to evaluate therapeutic effects. It was established that the transplantation of bone marrow cells to normal rats lowers the level of deoxyribosides (deoxycytidine included) by 50 to 60%. Intravenous injection of bone marrow cells to rats irradiated with lethal doses also lowers the content of nucleosides in the urine. It points to the intensification of DNA synthesis, which has been inhibited by irradiation.

Institute of Pathology, Academy of Sciences, Moscow, USSR

report presented at the 2nd Intl. Congress of Radiation Research,  
Harrogate/Yorkshire, Gt. Brit. 5-11 Aug 1962

KHACHCHEV, S.S.

ACCESSION NR: AT4042653

S/0000/63/000/000/0056/0060

AUTHOR: Baranov, V. I.; Gyurdzhian, A. A.; Lomova, M. A.; Radkevich, L. A.;  
Tutochkina, L. T.; Fedorova, T. A.; Furayeva, L. P.; Khn'chev, S. S.; Artem'yeva,  
N. S.

TITLE: The effect of gravity on the development of organisms

SOURCE: Konferentsiya po aviatsionnoy i kosmicheskoy meditsine, 1963.  
Aviatsionnaya i kosmicheskaya meditsina (Aviation and space medicine); materialy  
konferentsii. Moscow, 1963, 56-60

TOPIC TAGS: gravity, centrifuge, organism development, physiological function,  
rat, chronic centrifugation, blood composition, urine composition, Coriolis  
acceleration

ABSTRACT: In this investigation, Baranov and his co-workers designed a centrifuge  
for small animals with an arm radius of 133 cm which could be regulated to produce  
artificial gravitational fields of from 4 to 5 g. The centrifuge was arranged  
in such a way that the arms and cages at the end of the arms would simultaneously  
rotate around their axes producing Coriolis accelerations. A single control panel

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ACCESSION NR: AT4042653

regulated the photography and illumination of cage interiors, automatic feeding of the animals, and the revolving rate of the centrifuge. It was possible to record five separate physiological functions from some specially prepared animals. Experiments were conducted on white rats, commencing on the first day after birth and continuing for 25 days. Litters consisting of 200 animals were divided into experimental and control groups. All animals were born at approximately the same time. Experimental animals were subjected to accelerations ranging from 1.5 to 3 g for periods of from 4 to 6 hours, 6 days per week. The weighing of all animals took place every three days as did biochemical assays of the blood and urine, tests of vestibular activity, and the determination of the time of sexual maturity in female animals. At the termination of the experiment, a comparative test of the response of both experimental and control animals to brief accelerations of 5, 10 and 20 g was conducted. After 20--25 days, the body weight of chronically centrifuged animals was 60--80% that of the controls. The composition of erythrocytes (89.6%), leukocytes (93.4%), and hemoglobin (99.1%) in the blood of experimental animals with respect to control animals reflected a slightly anemic condition. While blood albumin in experimental animals was somewhat lower than in the controls, serum mucoid composition was higher, indicating a change of dystrophic character. Urine assays of experimental animals showed that the levels of Diche-positive substance (48%), nitrogen (62%), creatine (31%),

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ACCESSION NR: AT4042653

and creatinine (60%) were lower than in the control animals. Finally, the estral cycle of experimental females was significantly altered, though one female gave normal birth to young. In the second investigation, control animals exposed to brief accelerations of 5 g showed noticeable increases in the level of non-enterified fatty acids, decreases in serum mucoid composition, and increases in the albumin-globulin ration. However, at 20 g there was an increase in serum mucoid composition and a decrease in the albumin-globulin ration. Biochemical variations in experimental animals subjected to the same accelerations were insignificant. The authors conclude that gravity plays a complex role in the physiological processes of the developing organism but that the true mechanism of this role is far from being understood.

• ASSOCIATION: none

SUBMITTED: 27Sep63

ENCL: 00

SUB CODE: 18

NO REF SOV: 000

OTHER: 000

Card 3/3

L 16978-56 EWI(m)	
ACC NR: AP6001322	SOURCE CODE: UR/0248/65/000/009/0070/0074
AUTHOR: Baluda, V. P.; Lysogorov, N. V.; Khnychev, S. S.; Ishmukhametova, D. N.; Rukazenkova, Zh. N.; Gorlanova, T. A.; Rudakov, I. A.; Susanyan, T. A.	
ORG: Institute of Medical Radiology AMN SSSR, Obninsk (Institut meditsinskoy radiologii AMN SSSR)	
TITLE: Blood coagulation and fibrinolytic activity in acute radiation sickness	
SOURCE: AMN SSSR. Vestnik, no. 9, 1965, 70-74	
TOPIC TAGS: radiation sickness, blood, coagulation, hematology	
ABSTRACT: The hemorrhagic syndrome is considered the gravest manifestation of acute radiation sickness and to a great extent determines its degree, duration and outcome. However, despite numerous investigations of the factors responsible for hemorrhage in this disease, the pathogenesis of this phenomenon has not been elucidated. The authors have investigated the functional conditions of coagulation and of the fibrinolytic system of the blood in acute radiation sickness produced by gamma-radiation with Co <sup>60</sup> . 256 "August" strain rats were irradiated with	
Cord 1/3	UDC: 617-001.28-036.11-07:[616.151.5+616.153.962.4]

L 16778-66

ACC NR: AP6001322

600 rad each. Four phases were discernible during the course of the disease: Phase I--primary reaction (1-2 days following irradiation), II--hidden (3-6 days), III--peak (7-15 days), IV--recovery (20-30 days). Detailed descriptions are presented of the physical appearance and behavior of the animals during the four phases as well as of the changes found in the cellular composition of the blood, bone marrow and spleen. The following changes in the clotting system of the blood were observed following irradiation: initial decrease (phase I) followed by an increase in the coagulation time, reduced tolerance of plasma to heparin, diminished prothrombin activity, increased thrombin time and fibrinogen concentration, first an increase (phase I) then a decrease (Phase III) in thrombin concentration, reduced thermal stability, the emergence of fibrinogen B, reduced fibrinase and increased fibrinolytic activity, diminished platelet count and delayed retraction of the clot. The electron microscope showed disturbances in the fibrin fibers such as rupture and vacuolization. It is evident that the hemorrhagic syndrome appears in the first phase only 24 hours after irradiation as indicated by the presence of blood in the feces at that time. It can therefore be concluded that in acute radiation sickness damage to the blood vessel walls first occurs in the gastrointestinal tract and only later spreads to the vessels of the skin. Also responsible for the hemorrha-

Card 2/3



L 16778-66

ACC NR: AP6001322

gic syndrome is the disordered coagulation of the blood which in itself  
can cause alterations in the vascular walls and produce bleeding in ad-  
dition to its more obvious effects. Orig. art. has: 1 table.

SUB CODE: 06/ SUBM DATE: 05Jun65/ ORIG REF: 008/ OTH REF: 017

Card 3/3 mc

BALUDA, V.P.; LYSOGOROV, N.V.; KHNYCHEV, S.S.; ISHMUKHMETOVA, D.N.;  
RUKAZENKOVA, Zh.N.; GORLANOVA, T.A.; RUDAKOV, I.A.; SUSANYAN, T.A.

Blood coagulation and its fibrinolytic activity in acute  
radiation sickness. Vest. AMN SSSR 20 no.9:70-74 '65.  
(MIRA 18:11)

1. Institut meditsinskoy radiologii AMN SSSR, Obninsk.

RUDAKOVA, S.F.; ZHUKOVA, N.A.; KHNYCHEV, S.S.; SUSANYAN, T.A.; KOZLOVA, I.I.

Some new aspects of the effect of  $\epsilon$ -aminocaproic acid  
on the organism. Vest. AMN SSSR 20 no.9:74-77 '65.  
(MIRA 18:11)

1. Institut meditsinskoy radiologii AMN SSSR, Obninsk.

ALEKSANDROV, Nikolay Nikolayevich; KOCHERGINA, Anna Vasil'yevna;  
POKROVSKIY, Leonid Alekseyevich. Prinimal uchastiye  
KHNYKIN, V.F.; LOGUNTSOV, B.M., otv. red.; GEYMAN, L.M.,  
red. izd-va; MAKSIMOVA, V.V., tekhn. red.

[Contemporary mechanization for working placer deposits] Sov.  
remennaya mekhanizatsiya dlia razrabotki rossypel; spravochnoe  
posobie. Moskva, Gosgortekhnizdat, 1963. 462 p. (MIRA 16:7)  
(Hydraulic mining—Equipment and supplies)  
(Automatic control)